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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,890	07/31/2006	Yuichiro Ogawa	126655	3188
25944	7590	06/19/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER MACKEY, JAMES P	
			ART UNIT 1722	PAPER NUMBER
			MAIL DATE 06/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,890	Applicant(s) OGAWA, YUICHIRO	
	Examiner James Mackey	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/3/2006; 9/18/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

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1. Claims 3, 6, 8 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "small" and "large" in claims 3 and 8 are relative terms which render the claim indefinite. The terms "small" and "large" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In claim 6, 11 and 12, "said base portion" lacks proper antecedent basis in the claim.

Claims 13 and 14 are indefinite as to how the "connector means" relates to and cooperates with the "positioning/assembling portions" of claim 4.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 7-125506.

Japan '506 teaches a tire mold core 21 having plural segments 21A, 21B which alternately diverge and converge (Figure 3) to form a toroidal assembly, each segment being divided into a center portion 21 and opposed detachably connected side portions 26 (see Figures 2 and 5) with planar parting surfaces therebetween, and a pair of retainer rings 36 engageable with the toroidal assembly axially from both sides.

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4. Claims 1-4, 6-13, 15-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Pizzorno (U.S. Patent 4,116,596).

Pizzorno '596 teaches a tire mold core having plural segments 1, 2 which alternately diverge and converge (Figure 1) to form a toroidal assembly, each segment being divided into a center portion 5 and opposed detachably connected side portions 6, 7 with parting surfaces 18, 19 between the portions of the segments being arranged in common planes within the toroidal assembly, and a pair of retainer rings 4 engageable with the toroidal assembly axially from both sides. The base portion of the center portion of each segment is provided with connector means including positioning/assembling portions 15, 27, 28 (see Figures 3 and 4) for connecting and positioning the side portions with respect to the center portion. The maximum width of each segment inherently is larger than the minimum width of each segment by at least 40mm.

5. Claims 1, 2, 4-7, 9, 11, 13-15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (U.S. Patent 1,366,750; Figures 1 and 8).

Smith et al. disclose a tire mold core having plural segments A, B (Figure 1) arranged to form a toroidal assembly, each segment being divided into a center portion 18 and opposed detachably connected side portions 21 (Figure 8) with parting surfaces (at 19, 20) between the portions of the segments being arranged in common planes within the toroidal assembly, and a pair of retainer rings 24 engageable with the toroidal assembly axially from both sides. The center portion includes a base portion 19 which has connector means including positioning/assembly portions 21' (screws within cooperating holes, which read on male/female fitting portions as broadly claimed) for connecting and positioning the side portions with respect

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to the center portion. The maximum width of each segment inherently is larger than the minimum width of each segment by at least 40mm.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 3, 8, 10, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent 1,366,750; Figures 1 and 8).

Smith et al. disclose a tire mold core substantially as claimed, wherein the segments A, B are either of diverging width (segments A) or of constant or converging width (segment B). Smith et al. do not disclose that these two types of segments are alternately arranged in a circumferential direction in the toroidal assembly. However, a toroidal mold core assembly having alternately arranged diverging and converging segments is notoriously well known in the tire mold core art, and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Smith et al. by providing the two types of segments in an alternately

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arranged fashion in the toriodal assembly, as is notoriously well known, in order to facilitate assembly and disassembly of the tire mold core.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

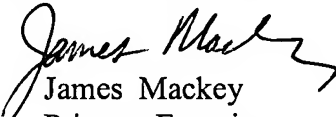
Beckadolph (U.S. Patent 3,123,122; Figure 5) shows a tire mold having a toroidal mold core including a central portion assembled with opposed side portions, but does not further describe this mold core. Fuzioka et al. (U.S. Patent 4,286,942), Gammeter (U.S. Patent 1,670,446) and Huetter (U.S. Patent 1,616,959; Figure 5) each discloses a three-part toroidal mold core.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James Mackey
Primary Examiner
Art Unit 1722

6/11/07

jpm
June 11, 2007